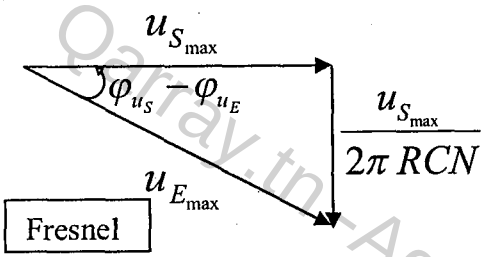
$T = \frac{R}{R_0}\frac{1}{\sqrt{1+(2\pi RCN)^2}}$ ; $G = G_0 - 10 \log [1 + (2\pi RCN)^2]$ avec $T_0 = \frac{R}{R_0}$ et $G_0 = 20 \log \frac{R}{R_0}$

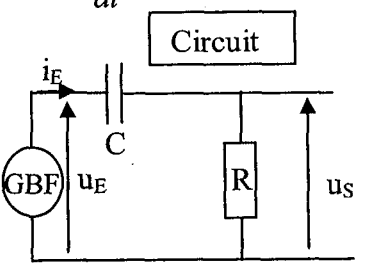
- Si $R > R_0$ on a $T_0 > 1 \Rightarrow G_0 > 0$.
- Si $R = R_0$ on a $T_0 = 1 \Rightarrow G_0 = 0$.
- Si $R < R_0$ on a $T_0 < 1 \Rightarrow G_0 < 0$.

$N_b = 0$ Hz et $N_h = \frac{1}{2\pi RC} \Rightarrow$ bande passante : $[0 ; \frac{1}{2\pi RC}]$ ; $\frac{\pi}{2} \langle \varphi_{u_S} - \varphi_{u_E} \langle \pi$

3) Filtre passe haut

Equation différentielle : $u_S(t) + RC\frac{du_S(t)}{dt} = RC\frac{du_E(t)}{dt}$.



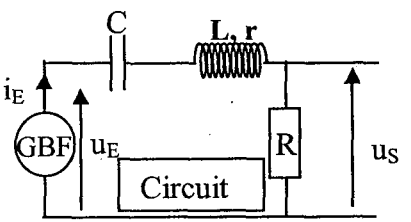



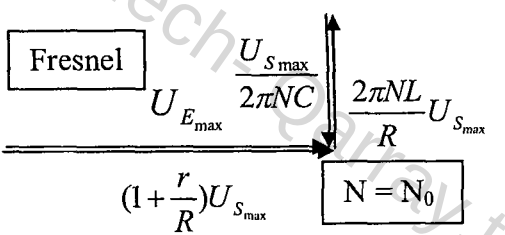

$T = \frac{1}{\sqrt{1+\frac{1}{(2\pi RCN)^2}}}$ ; $G = -10 \log [1 + \frac{1}{(2\pi RCN)^2}]$ avec $T_0 = 1$ et $G_0 = 0$

$N_b = \frac{1}{2\pi RC}$ et $N_h = +\infty \Rightarrow$ bande passante : $[\frac{1}{2\pi RC} ; +\infty[$ ; $0 \langle \varphi_{u_S} - \varphi_{u_E} \langle \frac{\pi}{2} rad$

4) Filtre passe bande

Equation différentielle : $\frac{1}{RC}u_S(t) + (1+\frac{r}{R})\frac{du_S(t)}{dt} + \frac{L}{R}\frac{d^2u_S(t)}{dt^2} = \frac{du_E(t)}{dt}$.




Qarray.tn - Aqra Blech - Qarray.tn